

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025087**Date Inspected:** 12-Jul-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Steve Jensen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above.

This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Prior to the start of welding this QA Inspector observed an induction heating system consisting of the blanket type appeared to have been positioned over the area to be welded in order to start the preheating process, gas troches are used to bring the preheat temperature to be within the range specified in the Welding Procedure Specification (WPS). At the completion of welding and/or at the end of the shift it appears the same induction heating system is used to perform the 3 hour post heating.

114 Meter elevation – West Tower – Splice Plates

This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) using the Flux Cored Arc Welding (FCAW) process for production welding in the vertical (3F) position on the bottom half of weld joint #165-Northwest. This QA Inspector randomly observed as QC Inspector Steve Jensen verified the following parameters; 272 amperes and 20.5 volts at a travel speed of 100 mm per minute to produce a heat input value of 3.35 KJ per mm. The welding observed by this QA Inspector appeared to comply with the Welding Procedure Specification (WPS) ABF-WPS-D15-F2200-3.

This QA Inspector periodically observed QC Inspector Steve Jensen monitoring the preheat/interpass temperatures

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and welding parameters during the shift. In general the work observed by this QA Inspector appeared to comply with the contract requirements.

Orthotropic Box Girder sections:

11E/12E-A2 and A3 – This QA Inspector was informed by QC Inspector Bonifacio Daquinag Jr. the Magnetic Particle Testing (MT) and Ultrasonic Testing (UT) had been completed and accepted for the sections of welds noted above. This QA Inspector performed a random MT verification and UT verification on weld joints 11E/12E-A2 and A3. This QA Inspector observed at 11E/12E-A3 the MT and UT verification appeared to comply with the contract requirements. This QA Inspector observed at 11E/12E-A2 the MT verification appeared to comply with the contract requirements, but the UT verification produced a signal which appeared to be a defect. The UT signal produced an indication length of approximately 4mm and a rating just slightly greater than allowed. This QA Inspector had a conversation with QC Inspector Bonifacio Daquinag Jr. regarding this observation and was informed later this date the area had been re-inspected, rejected and that repair welding was scheduled for the next day.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
